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ORIGINAL DEPARTMENT.

COMMUNICATIONS.

Nervous Deafness.

Translated from the French of "Duchenne, De l'Electrisation Localisée." Paris, 1861.

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The mere title of this article compels me to declare, even before I enter upon my subject, that I have but little inclination toward purely therapeutic experiments, as my friends well know. It is even not without regret that I find myself engaged in the electro-therapeutics which I am about to describe in this article. Upon that point I must say a few words of explanation. The idea one day occurred to me of studying the chorda tympani nerve, by exciting it through the external auditory canal. My own ears and those of my friends being insufficient for my experiments, I availed myself of those of the deaf patients whom I attended gratuitously, to whom I could hold out the possibility of improvement. It so happened that I cured or benefited most of those persons. It was thus that physiological curiosity first engaged me in this curative experimenting. Those curative facts soon became known, and then a great number not only of the deaf, but also of the deaf and dumb, applied to me; and thus, willingly or otherwise, I was compelled to continue my experiments, although they were but little in harmony with my tastes. Those therapeutic results appeared to me to be sufficiently important to form the subject of a memoir, which I published in 1851.* The facts on which that memoir is founded are carefully noted, and are quite incontestable, and they have been confirmed by new cases publicly collected. The inexplicable protests of a few specialists, who still deny the curative power of the electrical excitation of the organ of hearing in cases of nervous deafness, render it necessary, nay, an actual duty to republish, textually, all those facts and the work of which they were the subject.

Nearly eight years ago, proposing to examine, by means of local Faradisation, what are the physiological properties of the chorda tympani nerve, I first of all made some experiments upon myself.* Having ascertained that they involved no danger or pain, I next repeated those experiments upon other persons. At the outset I thought that that profound excitation of the ear produced by the process of Faradisation that I had established for my electro-physiological researches, might be useful in the treatment of nervous deafness, although I as yet was unacquainted with the physiological mode of action, and it was therefore impossible for me to obtain from it the slightest rational therapeutic deduction. Those previsions have been fully justified, after many years of experience, by the facts which I published in 1855, in the preceding edition.† Those facts, although very authentic and rigorously noted, have not yet been able to convince every one, and thus even those who might be most benefited by an acquaintance with those researches, (some surgeon-aurists,) still deny the therapeutic action of all electric excitation upon nervous deafness. Though I had not the slightest doubt of the good faith of my learned opponents, the fact of their opposition convinced me that my researches were as yet insufficient. It is for that reason that I have continued them.

* On the value of Faradisation of the cord of the tympanum and of the motor muscles of the little bones, when applied to the treatment of nervous deafness.—(*Bulletin Générale de Thérapeutique*, 1858.)

* The results of those researches were published in a memoir entitled "Electro-physiological and Pathological Researches upon the Properties of the Chorda Tympani Nerve."—(*Archives Générales de Médecine*, 1851.)

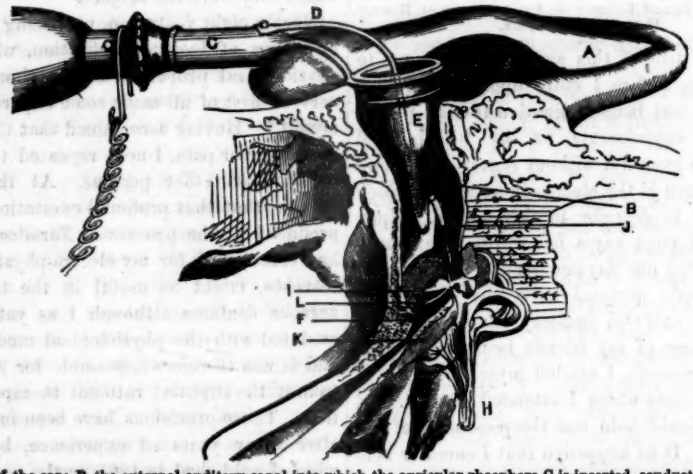
† Of localized electrifying, (Paris, 1855.) Deafness, p. 807.

In this work I am about to make known the results of those new researches, in presence of which doubt can no longer exist.

The new facts that I am about to publish will be empirical, but that does not render the practical question less decided. Nevertheless, it appears to me to be more fitting to proceed more scientifically in endeavoring to explain, as far as possible, the physiological action of the process of Faradisation, applied to that kind of electro-therapeutic researches.

I propose, then: 1. To study the physiological action of the process of Faradisation that I have experimentally applied to the cure of nervous deafness. 2. To exhibit new facts which demonstrate the real value of that mode of treatment. 3. To inquire if there is a pathognomonic prognostic symptom of nervous deafness.

Fig. 1.



A, pavilion of the ear; B, the external auditory canal into which the auricular rheophore C is inserted, conducting the thread of the auricular rheophore insulated by an ivory tube E, which plunges into the external auditory canal half filled with liquid; F, the tympanic cavity containing the little bones; G, the Eustachian tube; H, the inner ear or labyrinth, whose canals are open so as to display the acoustic nerve and its divisions; I, the lower half of the membrane of the tympanum joining the handle of the malleus; J, external muscle of the malleus or hammer; K, internal muscle of the malleus or hammer; L, tendon of the anterior muscle of the malleus or hammer.

A. Physiological action of the process of localized Faradisation, that I have established and applied to the treatment of nervous deafness.

1. *Operative procedure.* — The following is that procedure, as described in my memoir of 1851, upon the chorda tympani nerve. The head is bent so as to place the external auditory canal in a perpendicular direction, as in figure 1. We inject into the canal as much water as will half fill it, and into the liquid we plunge a metallic thread, taking care not to place it in contact with the membrane of the tympanum, or with the walls of the auditory canal. That which is produced by the slightest movement of the head or of the hand that holds the thread, causes a sharp pain at the moment of the passing of the current. That the patient may be spared that pain, I have got M. Charrière to construct for me an auricular rheophore, Fig. 1, C, in which the conducting metallic thread is insulated by an ivory envelope E, and cannot penetrate to the membrane of the tympanum I. Having waited until the noise has ceased that is produced by the impression of the liquid upon the membrane of the tympanum, we place the auricular rheophore in connection with one of the conductors of an inductive apparatus, (or magneto-electric,) and we close the circuit by placing upon the mastoid process the other wetted rheophore, which itself communicates with the second conductor of that apparatus.

The inductive apparatus which serves for this experiment is appropriate to the delicacy of the organ upon which it acts—that is to say, that the minimum of its power must be scarcely appreciable when the metallic rheophores are applied upon the extremity of the tongue, and that it must be in our power to graduate it with precision and upon a scale of great extent.

2. *Electro-physiological phenomena.* — I will

exhibit the series of phenomena which I observed each time that I subjected myself to the preceding experiment. I have seen them, in general, repeated on the subjects on whom I have experimented.

The rheophore being placed in my auditory conduit, which was previously half filled with water, and the apparatus being at its minimum, as intimated above, I perceived at the very moment of the intermittence a small, dry sound; like the crackling of parchment, which I could quite clearly trace to the bottom of the external auditory conduit. The intermittences having occurred with extreme rapidity, those sounds approached to the likeness of those made by the beating of a fly's wings between a pane of glass and a curtain. The intensity of the little sounds which I have just described increased in direct proportion to the increase of the current. That sensation was perfectly limited to the point at which the sound appeared to originate. After a certain time of excitation, and at a certain degree of tension of the current, I very plainly felt *a kind of tickling* in the right side of the tongue, at the junction of its posterior third with its middle third. Still gradually raising the force of the current, I felt the tickling sensation as gradually progressing toward the point of the tongue, where I then experienced a *numbness* and a *disagreeable pricking*, which did not go so far as actual pain.

The experiment, of which I have described the effects, is often followed by a numbness, and sometimes by an increased and excessive sensibility in the anterior two-thirds of the edge of the tongue, which last for a long time. It also appeared to me that my tongue was drier, and, as it were, rough, like a grater, on the side that was operated upon.

Such are the phenomena that first struck my attention, and which have subsequently been described, almost precisely in the order that I have indicated, by patients whom I have subjected to that experiment. But I have still to make known a phenomenon of high importance, which very frequently manifests itself when the excitation is sufficiently energetic; it is the production of a special gustatory sensation. That phenomenon is the last that attracted my attention, no doubt because it is marked by the accompanying sensation of tickling or pricking. And accordingly it will pass by almost unperceived, unless the experimenter be attentively watching for it. Although that gustatory sensation may be but little decided, it may be perfectly distinguished, and for my own particular part, I have felt it so very clearly that I can compare it to a metallic sensation.

Finally, some subjects receive at every intermittence a luminous sensation—the electric flash—on the excited side.

I will hereafter consider the action of the electric excitation of the chorda tympani; the salivary secretion in the human subject.

3. *Analysis of the preceding electro-physiological phenomena. a. Perception of a sound.*—The dry noise, as of the crackling of parchment, perceived in the bottom of the auditory conduit, at the moment of the intermittence of each inductive current, is produced by the shaking of the deep-seated parts of the ear, the little bones, and the membranes of the tympanum, and the fenestra ovalis or oval window.

It is true that we might suppose the causes of that sound to be the direct excitation of the acoustic nerve. But we need only to reflect upon the anatomical conditions of the region in which we are operating to understand that that nerve, inclosed in its petrous bone or rock, is inaccessible to that direct excitation. In fact, the membrane of the tympanum is not joined on to the inner wall of the drum, or to the membrane of the fenestra or oval window, from which it is distant some four or five millimetres, except by the chain of little bones, which are bad conductors of electricity. It would require a current infinitely more intense than that employed in my experiment to reach into the inner ear. Even admitting that, in that case, the acoustic nerve has directly received the electric excitement, it would still require demonstration that that excitation can produce a sound independently of all vibratory movement.

But what need have we of that improbable hypothesis, when the agitation of the chain of little bones, and of the membranes connecting with the extremities of that chain, sufficiently accounts for the production of the sound? There can be no doubt that in the case contemplated such agitation really does take place. I have ascertained it upon several animals, upon which I have repeated the same experiment after laying open the middle ear. (I will revert to that experiment in another work, in which I propose to exhibit the peculiar action of the motor muscles of the little bones.) That agitation is caused by the contraction of one or more of the motor muscles of the little bones. It cannot be conceived

but that in the human subject that muscular contraction must take place in the process of Faradisation of the ear, seeing that the exterior muscle of the hammer, which, as we know, is situated in the upper part of the auricular conduit, (J, Fig. 1,) is in contact with the liquid into which the rheophore is immersed.

It may be objected that there are anatomists who deny the existence of that muscle; but there are also other anatomists who admit it.* Moreover, does not the constant and proven existence of the short process of the malleus or hammer, which is evidently intended to receive the tendon of its exterior muscle, sufficiently demonstrate that the absence of that muscle can only be a mere anomaly?

Is the exterior muscle of the malleus or hammer the only one which, in that experiment, becomes contracted? Does not the current also reach the interior (K, Fig. 1) and anterior (L, Fig. 1) muscles of the malleus or hammer? To enter into that question would lead me too far out of my way, and would, besides, be of no utility. It suffices me to have established that a muscular contraction puts the malleus or hammer into motion, and consequently communicates motion to all the chain of little bones, and the membranes to which their extremities are attached, to explain that kind of *crackling* perceived by the subject of that experiment.

Here I must direct attention to a physical fact which results from the motion impressed upon the membrane of the *fenestra ovalis*, *i.e.* the agitation of the labyrinthine liquid, and consequently of the acoustic nerve, which dips into that liquid. We shall presently see that that phenomenon probably plays the most important part in the therapeutic question which is the principal subject of the article.

b. Excitation of the general and gustatory sensibility of the tongue.—The connections of the chorda tympani nerve with the membrane of the tympanum demonstrate that that nerve is necessarily excited in the experiment which I have to analyze.

We know that the chorda tympani (A, Fig. 2) detaches itself from the seventh pair, B, a little before its egress from the stylo-mastoid foramen or orifice; that it then ascends, by a peculiar canal, toward the tympanic cavity, into which it makes its way by an orifice situated on the level of the posterior extremity of the transverse diameter of the framing of the membrane of the tympanum; that it touches that membrane (in the point C) previous to passing between the vertical branch of the anvil and the handle of the malleus or hammer; and, finally, that after its egress from

Fig. 2.

A, chorda tympani nerve, separating from the facial nerve B, a little above the stylo-mastoid foramen or orifice, ascending into the tympanic cavity, attached to the membrane of the tympanum in the point C, before passing between the incus or anvil and the malleus or hammer, joining the lingual nerve D, after its egress from the drum of the tympanum; E, lower half of the membrane of the tympanum.

the drum by the fissura Glaseri, it anastomoses with the lingual nerve D, to which it joins at the point whence it ramifies into the anterior two-thirds of the tongue. With these anatomical data before us, we can readily comprehend that the conductor or rheophore, dipping into the liquid which fills the external auditory canal, must carry the excitation to the chord of the tympanum, which is immediately connected with the membrane of the tympanum.

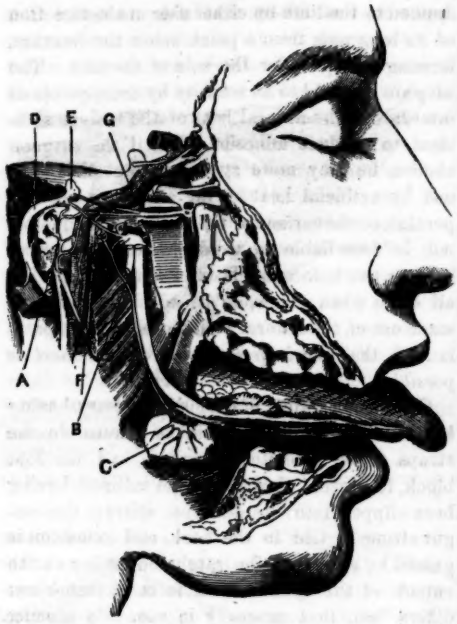
It is the excitation of the chorda tympani nerve which produces the numbness, the pricking, etc., that are felt in the tongue on the side operated upon; for that sensation is felt exactly at the point where that nerve enters the tongue after having anastomosed with the lingual nerve, thence to extend itself to the extremity of that organ.

It is true that the lingual nerve has analogous properties; and it may be objected that the chorda tympani nerve conducts the current to that nerve. But as that anastomosis takes place at from three to four centimetres below the point excited, it is impossible that the current, at so low a degree of intensity, can penetrate to the lingual nerve. On the other hand, no one will deny that that anastomosis is no other than a mere touching. The

* M. L. Hirschfield authorizes me to state that in his dissections he has always ascertained the existence of the exterior muscle of the malleus or hammer.

chorda tympani nerve may even be separated from the lingual nerve, as in Fig. 3. It results from it, then, that the chorda tympani may be excited independently of the lingual nerve.

Fig. 3.



A, Jacobson's nerve; B, chorda tympani nerve, joining on to the lingual nerve, and sending a thread to the submaxillary gland C; D, facial nerve; E, the genicular ganglion, into which proceed the great and little stony nerves F, G.

As to Jacobson's nerve, A, Fig. 3, (a branch of the glosso-pharyngeal, which constitutes the tympanic plexus, and which spreads against the posterior wall of the drum,) and as to the great and little stony nerves, F and G, I doubt that the excitation can reach them, even were the current intense, as, in this region, it cannot be without danger. Moreover, were the current to reach those nerves, the excitation would not be confined to the tongue, but would reach other organs; for instance, the veil of the palate, which would be seen to move, which is not the case in this experiment.

To be continued.

A physician of Lowell, Mass., broaches the theory that the wearing of cotton next the skin is a cause of consumption.

A New Fracture Apparatus. Adapted for the Treatment of Fractures of the Long Bones, by Extension and Counter-extension.

By JOSEPH H. VEDDER, M.D.,
Of Flushing, Long Island.

Fractures of the Thigh and Leg.—The adjoining cut represents a long splint for fractures of the thigh and leg. It consists of a strip of wood in two fragments, three and a quarter inches in width, extending from the crest of the ileum to a distance four inches below the sole of the foot. On the external surface of the splint, at a point corresponding with the knee, is fastened a hinge, with a detachable pin. To the upper fragment of the splint, on the inside, is fitted, by a pivot, a thin steel plate, seven inches in length, and in width the same as the splint.

Fig. 1 represents the long splint inverted and bent at the knee, to show the foot block and the mechanical arrangement by which it may be folded when not in use, and securely straightened when in use.

On the lower surface of the plate is fixed a button to slide into the groove seen on the lower fragment of the splint. By this arrangement at the knee, the splint may be folded together for convenience in packing when not in use.

On the lower end of the splint is fixed a narrow metallic bar, on which slides a box, having a pulley above and a thumb screw below, by means of which *the line of extension may be suited to the axis of the limb.*

On the outside of the splint may be seen two depressions guarded by a steel plate, so arranged that the ratchet plate may be firmly applied and removed at will.

The *extension ratchet pulley* consists of a metallic plate, having two buttons on its lower surface to correspond with holes on the splint, on the centre of which is fixed a grooved wheel, smooth on its inner edge and ratcheted on its outer edge. This wheel is revolved by means of the thumb plate or lever, and is secured at any desired point by a spring-catch. Into this pulley is fastened a strong cat-gut cord or linen twine,

which runs down the splint, and is attached by a loop to the upper hook on the *retentive box.*

Fig. 2.—Ratchet pulley.

The retentive apparatus consists of a thin bar of steel, notched with teeth on one edge, and fastened at either end into a depression made in the splint, on which glides a metallic box, provided with a hook above and below, and having on its under surface a projection to catch into the teeth. It will be seen that this box glides readily upward, but is prevented from slipping downward by the catch.

To the lower hook of the box is fastened by a loop a cat-gut string or strong linen cord, which, running down the splint and through it, over a roller, passes over another roller and is tied to the hook on the *foot block.*

The treatment of fractures of the thigh and leg by this apparatus does not differ essentially from that generally practiced where the Dessault splint is used. Counter-extension is effected by slipping the upper end of the splint into the pocket made in the combined pelvic belt and perineal band. The perineal strap is made after the plan now generally adopted in the New York hospitals, by passing a strong tourniquet tape of the required length through a shorter piece of India-rubber tubing of suitable size, and, having left a slight excess of tape within the tube, fastening either end to the tape. Thus moderate extension may be gained. It is well to stuff the tube with candle wick before fastening the ends.

For extension, a strip of canton flannel or other adhesive plaster, two inches in width, having been passed though the bracket in the foot block, is applied to the limb on either side in the direction of its long axis from a point below the fracture, forming a loop under the sole of the foot. The surgeon may add to its security by cross-pieces at intervals. The natural heat of the body is sufficient to produce adhesion; but if the surgeon choose, he may more speedily effect the same end by artificial heat or the application of turpentine to the surface of the plaster. The plaster will be less liable to yield if allowed to set an hour or two before much extension is made. In all cases when extension by adhesive plaster is made use of, the natural yielding of the soft parts is such that the *loop should be left as short as possible.*

Coaptation splints, if deemed necessary, having been secured about the point of fracture by the straps to be hereafter described, and the foot block, to prevent abrasion of the malleoli, having been slipped into the adhesive stirrup, the cat-gut string is tied to the hook, and extension is gained by revolving the ratcheted pulley on the outside of the splint. This form of foot block differs from that generally in use. By passing the plaster between the bracket and board, slitting of the plaster is avoided.

It will be readily seen that if the ratchet pulley be now removed, extension will be maintained by the retentive box. Not only does the surgeon have this extension ratchet for application in any number of cases, *but he also carries with him the key by which it is made in any individual case.* In his absence, the patient will be unable to "let up" or relax extension.

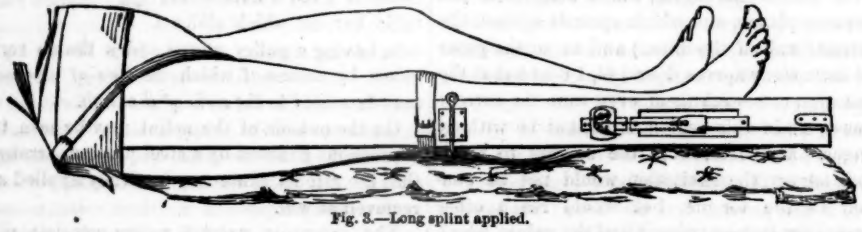


Fig. 3.—Long splint applied.

For Fracture of the Leg.—In certain cases of fracture of the leg, when the shortening is great, the surgeon is advised to use the long splint as

being more secure, and as producing better results than the double inclined plane. We may accomplish every indication secured by the long splint, and avoid counter-extension at the perineum, by the use of the apparatus now to be described.

Detach the upper fragment of the long splint by removing the pin, and in its place fasten as before this shorter fragment, provided with a steel hoop, finely notched in its upper edge, to encircle the limb midway between the knee and perineum. Strips of adhesive plaster, one inch in width, are placed on the thigh from the knee upward, and are reversed over the hoop. The hoop is then encircled with a wider adhesive plaster, for the double purpose of securing the ends of the parallel plasters and maintaining contact of the ends of the hoop. A fixed point for counter-extension having thus been gained, extension is effected as in fractures of the leg and thigh before described.

Adaptation to Double Inclined Plane.—This long splint may readily be converted into a double inclined plane by simply withdrawing the hinge pin, and attaching the leg fragment to the extra thigh piece. By means of a slide the thigh fragment may be lengthened or shortened at will. It may not be out of place to observe that the thigh fragment of the double inclined plane generally used, is too short. The bed board has on its lower surface two long buttons, which, when turned crosswise, cause it to set firmly in the bed. If the lower fragment of the splint be found too narrow, it may be widened by letting it into the opening provided in the fracture box. If the surgeon avails himself of the rachet pulley on the lower surface of the splint, extension from the foot may be gained on the double inclined plane.

A simple double inclined plane without extension is made by replacing the lower fragment of the long splint with the fragment to which the foot board is attached. In comminuted fractures of the leg it is sometimes well to elevate the lower end of the box level with, or even higher than, the knee. This expedient, which causes the venous blood to gravitate toward the centre, may be accomplished by placing a support over the bed board, or by swinging the box from a wooden frame. It will be seen that the removal of the hinge pin converts the lower fragment into a simple fracture box.

For Fractures of the Arm.—A strip of adhesive plaster is so placed on the arm, below the point of fracture, as to form a loop below the arm for extension.

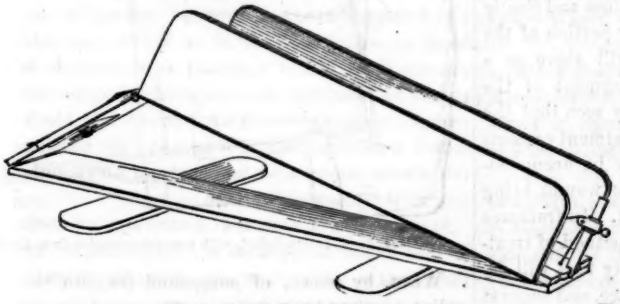


Fig. 4.—Double Inclined Plane.

Fig. 5.—Arm Splint applied with axillary strap.

Counter-extension is made from the axilla by means of a strap, (corresponding with the perineal strap,) if the splint be placed on the external or posterior aspects of the arm, or if the splint be placed on its inner aspect by the axillary crutch. The narrow splint, constructed similarly to the lower fragment of the thigh splint, is made fast by its upper extremity to the belt or crutch, as the case may be, while the cat-gut cord running over the roller in the shorter fragment, having been tied to the adhesive loop, extension is made as before.

To prevent lateral motion of the parts, and to obviate the tendency of the lower fractured fragment of the bone from tilting upward, it will sometimes be found necessary to place, at intervals,

cross adhesive strips around both arm and splint.

Fig. 6.—Arm Splint applied with axillary crutch.

The same end may be as well effected by the use of the leathered coaptation splints and elastic straps. In fractures of the upper portion of the os-brachii, the crutch or band will serve as a wedge to throw the superior fragment of the bone outward. It will be plainly seen that the chief advantage of this plan of treatment consists in the facility with which it may be accommodated to compound fractures, the wound being always left exposed for treatment. In fractures at the elbow-joint, the extension method of treatment presents points of superiority that will demonstrate themselves by experience, and suggest themselves to the surgeon who studies the altered relations of the parts.

For Fractures of the Forearm.—The adjoining cut, perhaps, illustrates definitely enough the

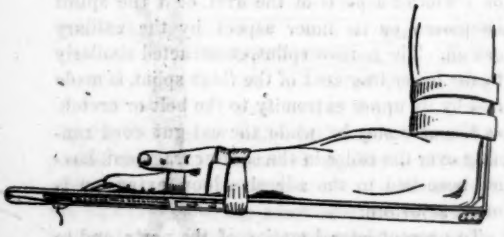


Fig. 7.—Forearm Splint, with counter-extension from the arm.

form of splint and application of the same to fractures of the forearm. Counter-extension is made either by encircling the arm and splint, when the splint is placed on the inferior aspect of the forearm, with adhesive plaster, or by running a strip of the same from the point of fracture on the inner aspect of the forearm over the shorter fragment of the splint to a corresponding point on the outer aspect of the forearm.

Extension is gained by so placing an adhesive plaster on the palmar and opposite surface of the forearm and hand as to form a loop above the fingers. To the loop the cat-gut is tied and extension is effected as before.

In whatever position the surgeon may place the limb, whether looking directly upward or directly backward, or in the generally advised position, between the two, the splint may be readily applied and secured.

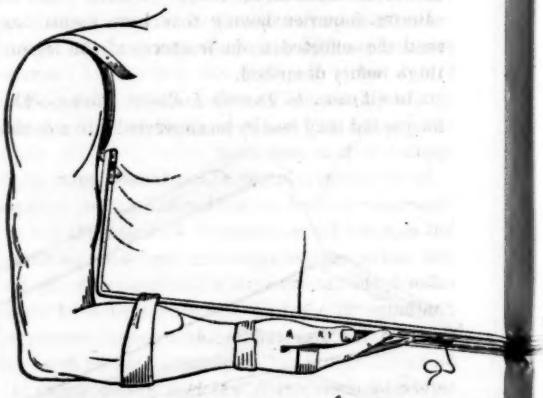


Fig. 8.—Forearm Splint, with counter-extension from the shoul

When, by reason of compound fracture, the splint is placed on the superior aspect of the forearm, the pressure of the shorter fragment on the arm forms the point of counter-extension. If it be found that the slight pressure on the veins thus occasioned be productive of pain or congestion in the wound, it may be deemed best to secure a point of counter-extension from the shoulder. Insert the pin of the crutch into the tube on the upper end of the splint, and having placed the pad against the shoulder, a firm point for counter-extension is obtained.

Barton and Colles fractures may be treated certainly as well by this as by any other method now used. It will be necessary to place a compress near the elbow, and another to fill the posterior concavity near the wrist, and to retain the carpal end of the bone against the splint by passing adhesive strips around both arm and

splint. Some ingenuity must be exercised by the surgeon in applying adhesive plaster to the arm and hand.

The principle of extension and counter-extension, in the treatment of fractures of the humerus, radius, and ulna, is discussed and illustrated by cases in a paper by Dr. John Swinburne, of Albany, to be found in the *Transactions of the New York State Medical Society for* 1861. The profession are under a weight of obligation to Dr. S. for the philosophic manner in which he has prosecuted this novel method of cure.

To those who feel inclined to investigate by trial this plan, the apparatus here described will be found superior, in that the extension may be more gradually made, and in the facility with which any relaxation of the plasters may be remedied from day to day.

Recent inquiries have, to a certain extent, lessened the confidence of the surgeon in the absolute necessity of splints and bandages of coaptation in all cases of fracture. The surgeon should not discard their use in cases where they may be applied with advantage.

In compound fractures, one benefit gained by dispensing with them is, that the wound is thus left exposed for treatment. While this is one of the merits of the appliance here described, another is the facility with which extension may be continued for any length of time in cases of comminuted fractures and fractures complicated with wounds. Splints of coaptation may be best retained by these straps, which, it will be observed, may be made elastic or inelastic at will.

Those dislocations of the shoulder, elbow, and wrist, difficult to be retained by any other means, may be easily held in place by the application of these splints, and luxations of the phalanges of the finger and thumb may, by the same means, be reduced.

Ready Field Splints for Army Surgeons.—To Foster Swift, M.D., of New York City, Surgeon 8th N. Y. S. M., and Lecturer in the College of Physicians and Surgeons, I am indebted for the following description of an extemporaneous fracture device that may prove valuable occasionally to other than military surgeons:—

"I inclose a succinct description of an extemporaneous splint which was more particularly adapted to the treatment of arm fractures from gunshot wounds, and which was especially serviceable in putting the patient in a condition to be transportable with comparative comfort.

"After the battle of Bull Run, on the 21st July last, we were left with four or five cases of fractured arms, with no appliances for their treatment, and with the prospect of their transportation over a rough road in rough wagons to Manassas, and from thence to Richmond. Without splints and without any light material to make them of, I am indebted to Dr. Hoges, of one of the Mississippi regiments in the rebel army, for the following simple contrivance, which afforded great relief to our wounded men in their jolting journey. Two strips of adhesive plaster were cut two feet in length and three inches in width, one of which was carried over the upper fragment to the point of fracture, leaving a loop above; the other was carried in a similar manner over the lower fragment, forming a loop below. A piece of board about one foot longer than the fractured limb, with a V-shaped piece removed from each end, was then applied to the arm. The lower loop was tied by a bandage to the lower V and the upper loop to the upper V. The fragments were thus separated, and the limb could be secured to the splint by a simple turn of the bandage above and below the point of fracture, thus leaving the orifice of the entrance and exit of the ball open."

Not only upon the battle-field, but also in railroad accidents is the surgeon often obliged to transport his patient to a suitable place for treatment. When he is unable to provide himself with boards, or is without the means of sawing out the V-shaped piece, he may extemporize a retentive splint from tree branches.

Bind together two straight branches of suitable size and length, so that a fork will be left on either end over which the bandage attached to the loops may be tied. In place of the upper adhesive loop, the surgeon may use an axillary strap made of such material as may be at hand, and in place of the lower loop, he may substitute a handkerchief bandage. The necessary pads and bandages may be made from such material as is convenient. If one branch be *let into the other by a notch*, before they are bound together, the splint will be firm enough to bear any pressure.

Fig. 9.—Field Arm Splint.

In fractures of the forearm the two branches must be so bound together that the fork at the elbow may be parallel with the long axis of the arm, and the fork at

the opposite extremity parallel with the hand in a supine position. A short fork must be left in

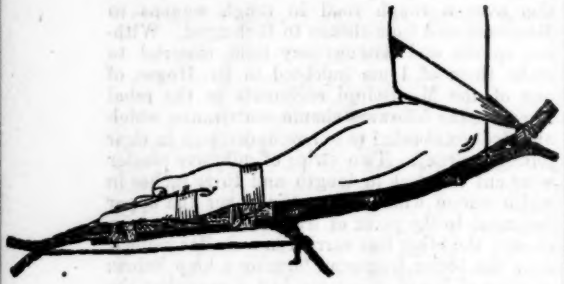


Fig. 10.—Field Forearm Splint applied.

the middle of the rustic splint to which the hand loop may be tied, after the manner described in the paper on extension.

of the limb between the head of the bone and the crest of the ilium, and in the same manner form a loop below the point of fracture, above the external malleolus. Place on the outside of the limb, parallel with its long axis, two forked branches, hinged at the knee by a cord or strip of bandage, and on the opposite side of the limb place a long, straight branch. If, now, the loops be tied to the forked ends, and the *splint then straightened*, extension to the required length will be effected. To secure this extension, bind the two hinged branches together. Let a bandage now be turned around the splints and leg. In place of the upper adhesive loop a perineal strap may be used, and in place of the lower loop a handkerchief bandage. *In making the hinge at the knee, let both branches be deeply notched to hold the cord in place.*

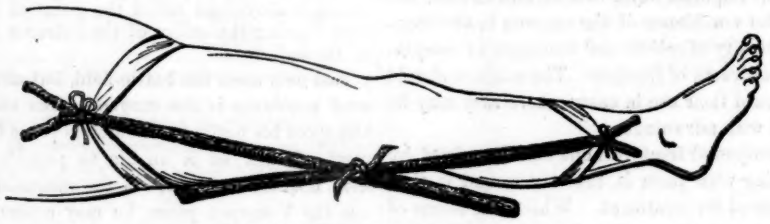


Fig. 11.—Field Extension Thigh Splint partially applied.

In fractures of the leg and thigh, if no more available appliance is at hand, the field surgeon may construct a ready extension apparatus thus: apply an adhesive plaster above the point of fracture so as to form a short loop on the outside. Thus, with adhesive plaster, a few bandages, and a pocket-knife, the field surgeon has always at hand means adequate to render a patient with a fractured limb comfortable during transportation to a general hospital.

Illustrations of Hospital Practice.

UNIVERSITY MEDICAL COLLEGE.

Clinique of Prof. Van Buren.

May 20th.

NECROSIS OF INFERIOR MAXILLA INVOLVING THE WHOLE BONE.

There are two causes for the necrosis in this case, viz., the fumes of phosphorus, while working in a match factory, and a cold contracted while living in a damp cellar, after having taken calomel. Great enlargement of the lower part of the face is a peculiar feature of necrosis, resulting from exposure to the fumes of phosphorus; this kind of necrosis is *sui generis*. The treatment of this case should be directed primarily to the general health—the diseased parts should be washed with a solution of chlorate of potash, two or three times a day; afterward the openings should be enlarged, and the dead bone extracted. It is not a difficult matter to remove a very large piece of the jaw-bone, but that is an operation entirely distinct from the removal of necrosed bone in such a case as this. This girl was in a match factory three years, exposed to the fumes of phosphorus, which has produced its peculiar effect, and resembles mercury in that both generally attack the alveoli first; in this case the alveoli seem to be sound. The true way to proceed, in removing the sequestrum, is to enlarge the sinuses, and perhaps connect one or more so as to insert the finger, and feel for the size and direction of diseased bone; after the condition is thoroughly ascertained, the sequestrum may be seized, and generally pulled out by a sufficient amount of patience and perseverance. This is an entirely distinct business from removing a portion of jaw-bone.

There are other forms of disease of the jaw-bone, among which are the malignant and cystic. The latter form was first discovered and described

by a French surgeon named Forget, about eleven years ago. It is produced by an abnormal growth of the molar teeth, which may come crosswise, inverted, etc., producing cysts, and ultimate disease of bone. This form of disease is not malignant. The professor has obtained his principal knowledge of this disease from the study of cases which have come into the hands of dentists. The proper remedy is the extraction of the offending tooth.

COMPOUND COMMINUTED FRACTURE OF LEG RESULTING IN NECROSIS.

In this case there is a chronic eczema of the leg, a common complication of this condition of old ulcers, etc. arising in part, at least, from remedial applications. It may be bathed in water simply, or water with slippery elm. The surgeon should never attempt to remove sequestrum with small forceps, for it often happens that he will find more work than he anticipates, and thus fail to accomplish his object. Here the professor exhibited a favorite form of dead bone forceps, invented by a French surgeon, which are very strong, and, being shaped like the arc of a circle, can be readily introduced a great distance into the sinuses. The opening was freely enlarged, and a fine specimen of sequestrum, about five inches in length, extracted from the tibia.

The professor proceeded to remark, in connection with a case of deformity of the tibia, resulting from fracture, which occurred in the Navy, that the great evil in military surgery is the reluctance, on the part of surgeons, to attempt primary operations. In military surgery these operations are demanded in order to save the life of patients, who would recover without them in private or hospital practice. In the former case there are not those appliances nor conveniences for treatment which we have in hospitals here, and the patient, suffering from protracted pain and disease, runs down, and finally dies of diarrhœa, or complications incident to a condition of extreme debility. It is the opinion of an eminent surgeon, who has had much opportunity for observing, that the suffering and loss of life resulting from neglect of primary operations, which he witnessed in military practice, was one of the most deplorable things he observed.

The removal of the wounded far from the field of battle and to distant localities for treatment is a new feature of military medicine, which means much more than military surgery—it relates to what pertains to the prevention as well as the cure of disease, and the saving of life and suffering by removal of the sick and wounded, for the better appliances and conveniences of hospital treatment. This is the grand object in view by the volunteer efforts of civil surgeons at the present time, the principal feature of their operations.

Surgeons Halley and Howard, of the Maine Volunteers, were taken prisoners at Williamsport.

Medical Societies.

NEW YORK ACADEMY OF MEDICINE.

May 21, 1862.

(*Continued from page* 167.)

ALBUMINURIA.

Prof. Clark, in resuming the subject, remarked that pain in the back had been regarded as one of the symptoms of the complaint under consideration; but he noticed it merely to say that he did not regard it as a reliable symptom. Headache is classed among the symptoms. Difficulty of diaphoresis is occasionally found to exist; but the majority of cases may be made to perspire freely by the use of the proper means. The urine, in the beginning and near the termination of the disease, is scanty and high colored, but during the intermediate stage, is more profuse and light colored. The quantity voided is usually smaller than in health, if diuretic medicines are not taken, but varies considerably from day to day, as proved by experiment, whether these medicines are taken or not. As the disease progresses, the quantity of urine diminishes and becomes often blood colored. While it is well known that albumen exists in the urine of a great majority of cases, yet in some it cannot be found; and its absence in these cases is a circumstance which may lead to grave errors in diagnosis.

The presence of casts in the urine is a pretty reliable symptom, if they be fatty or granular. These casts take the form of the uriniferous tubes, and vary from a dark-brown or blood color to a perfectly transparent or hyaline color. The blood casts are filled with blood which has undergone coagulation, and hence are named blood casts; those containing fat are called fatty casts; those containing granules, granular. One or more of these forms exists in all cases, and it is an interesting question, whether the hyaline casts are peculiar to this disease. The fatty and granular are always indicative of Bright's disease, either acute or chronic, but regarding the blood casts there is some doubt.

In the beginning of the disease, the urine is sometimes of a bloody, sometimes of a smoky hue; the blood is not unlike that found in the stomachs of yellow fever patients, in which the blood has undergone that change by which the hematin is converted into hematoidin, giving to the blood somewhat of a brown color. The significance of bloody and smoky urine is the same, always indicating a decided congestion.

Bright's disease is uncommon in childhood and old age, and belongs especially to the period called middle age; it may occasionally be found beyond fifty and fifty-five, but seldom beyond sixty. It is nearly twice as frequent in males as in females; we meet with it almost everywhere, and there is no case in which it may not be found. It is not unfrequently found in connection with chronic diarrhœa. He recently saw a case of

chronic diarrhœa which terminated in uræmia, convulsions, insensibility, and death—the urine was not albuminous, but it contained the granular and fatty casts. The connection of albuminuria with diarrhœa is doubtless due to changed action of the abdominal ganglionic chain of nerves, brought about by visceral disease. It is well known that a considerable number of those who suffer with consumption have also Bright's disease, and it is well known that the par vagum sustains a pretty close connection between the ganglionic system of the lungs and the ganglionic system of the kidneys. There is apt to be acute inflammations of the kidney in yellow fever and cholera—in the former, the urine is almost always scanty or suppressed; it is albuminous and undergoes the change called reaction. The same may be said of cholera. Often, in this disease, the physician is unjustly blamed under the belief that when the patient dies after having taken large doses of opium, his death is due to the administration of that drug, but it is not opium which does the mischief, it is urea. In this and in all intestinal diseases, the kidneys are gravely affected.

Diabetes is not known to terminate with albumen in the urine and urea in the blood, but within the past year it has been the professor's fortune to notice two cases in which these changes occurred. This fact was new to him at the time he made the observation, although he has since learned that the same changes had been noticed by another observer.

Diuresis also sometimes terminates in albuminuria. One case observed was admitted into St. Luke's Hospital five years ago for diuresis; it was recently under private treatment for uræmia, and whether living now or not is uncertain.

Interesting changes in the urine are noticed in scarlet fever and pregnancy. In the worst forms of scarlet fever the urine is albuminous after the second or third day of the eruption; again about the second week after the eruption has disappeared. In these cases the kidney is the large or white kind; the casts are of a coarse, granular character, not unfrequently containing fatty and blood granules, which belong almost always to the white kidney. This condition is truly acute, and is generally curable. The same is true of pregnancy; but whether this condition is produced by pressure upon the aorta, or some obstruction to the return of venous blood from the uterus, is not known. After parturition the same condition continues one, two, or three months, and then generally gets well: it sometimes becomes chronic, and the patient finally dies with it, but these cases are not frequent.

The relation of Bright's disease with disease of the heart is of great importance. The connection of albuminuria and heart disease has long been recognized, and the common opinion is, that albuminuria precedes the heart disease, but this is not the professor's opinion. The great rule is, the heart is first affected, afterward the kidney; hence, it is my custom to caution patients affected with heart disease to be careful of the skin, and, by all other means, to preserve the kidneys.

Of 29 cases observed in 1853, the average age of those having the large kidney was 41 years; the average of those having the small kidney was 35 years; of normal kidney, 36 years; average of all observed was 36½ years; of 23 cases œdema existed in 16, and probably did not exist in 7; certainly did not in 5; of those having œdema, 9 had the large kidney; while none of those with small kidney had œdema, exhibiting a strong contrast between the two classes of cases; the kidney was of normal size in 6 having œdema. Smoky urine was found in 3 of the 23 described; urine was found albuminous in 13; not found so in 3; scanty in 8. Absence of albumen distributed itself equally among the three classes of kidney, large, small, and normal; but this is exceptional, for it is most commonly absent with small kidney, and most frequent with large.

The relation of cirrhosis, or of fibrous contraction of the liver, without roughness, with albuminuria, is worthy of notice; of the cases observed, 4 had cirrhosis and liver of simple contraction; fatty liver occurred in 4, in all of which there was fatty condition of the kidney; in one there was waxy liver, but not waxy kidney.

Of 22 deaths, 10 were from acute inflammation; 4 from pneumonia; 1 from pneumonia and pleurisy; 1 from pneumonia and bronchitis; 3 from pneumonia and pericarditis; 1 from puerperal metritis; 2 from uræmic stupor; 2 from convulsions; 2 from exhaustion produced by vomiting; 1 from œdema of lungs; 1 from phthisis; only one ran its natural course. Of those dying of acute inflammations, all but one had the large kidney; the convulsions occurred among those having the small kidney; heart disease occurred but three times; the concurrence of heart and kidney disease is not so frequent in hospital as in private practice; instances of fatty degeneration of the muscular tissue of the heart and lungs are found to present a corresponding state of the kidney.

To be continued.

NEW YORK PATHOLOGICAL SOCIETY.

May 14th.

HEART CLOT.

Prof. Flint presented a heart, from which he had taken a number of clots, arranged so as to tie the mitral valves together; heart was taken from a patient in hospital on Blackwell's Island, and presented no evidence of disease. He remarked that the formation of clots in the heart had not received the attention that it deserves. He had seen a case of pneumonia where clots were found binding down the tendinous cords; in both these cases there was sudden dyspnœa and death.

INJURY TO THE KNEE-JOINT.

DR. FINNELL presented the lower extremity of a boy, seven years of age, who had been suffering with disease of the knee, of five years' standing. The boy had, in the beginning, received an injury to the knee, to which no attention was paid; inflammation, suppuration, an abscess and a sinus, opening on the outside of the joint, were the results. How long this sinus had existed, he did not know. Complete dislocation of the joint had taken place, throwing the condyles of the femur forward. At the time of admission to St. Luke's Hospital, the dislocation existed and fluctuation could be felt, which was pus and other fluids. The points of interest are the dislocation and complete destruction of all parts of the joint. The propriety of trying to remove the deformity by dividing the hamstring muscles was first considered; the inner hamstring was divided, then the outer, with evident relief of tension, but without relieving the deformity, the joint being still held in its flexed position by adhesion of its ligaments. Force was applied ineffectually, the result of which was inflammation and renewed suppuration. The boy failed; and in order to save his life, amputation was performed by Dr. Thebeaud.

Exsection of the joint was not advisable from the fact of the extensive caries of the joint, extending, as it does, a considerable distance down into the cellular substance of the tibia, which would have required too large a removal of bone.

EXTIRPATION OF THE EYE.

DR. NOYES presented an eye, removed from a medical man, thirty-six years of age, which had been injured some years ago. For the last three years, he had had trouble with the sound eye, owing to the injury of the other. There was tenderness upon pressure; he had *muscæ volitantes*, and could read large print very indifferently. Extirpation of the eye was succeeded by chills, sickness at the stomach, pulse 110, collection of pus, which was discharged by puncturing the orbit. The other eye was not sensibly impaired. The diseased eye was found to contain an opacity upon the front of the crystalline lens and ossification of the choroid.

TUMOR OF ORBIT.

DR. NOYES also presented a tumor, removed from the orbit of a man, twenty-five years of age, and in good health. The tumor was of such a size as to cause the eye to protrude about an inch, it being covered by the upper lid, which had undergone gradual hypertrophy for the last fifteen years. There had never been any inflammatory symptoms; patient could read very well; the movements of the eye were well preserved; there was never any double vision; had never had rheumatism nor syphilis, and there had never been any cancer in the family. The ball could be seized with the fingers; the lachrymal gland was considerably displaced; but a decisive diagnosis could not be made. In operating, with the view of saving the eyeball if possible, the tumor was found situated behind the tunica vaginalis oculi, and had to be brought away in pieces. The lachrymal gland had undergone considerable hypertrophy, which was the principal cause of its apparent displacement. Hemorrhage came on, which was controlled by a compress and bandage, and in twenty-four hours the patient felt as well as ever; sloughing followed, movements of eyeball were lost, and an abscess formed in the upper lid, leaving a deformity. The tumor was a fibrous growth from the periosteum.

TUBERCULAR MENINGITIS.

DR. GEO. K. SMITH, of Brooklyn, presented a portion of the brain of a boy two years and eight months old, who belonged to a healthy family, and had no unusual illness of childhood; but it was noticed he often complained of his abdomen. On the fifth of April, when first visited, he was walking about the room; his face was pallid; his head large; tongue furred; pulse accelerated; bowels constipated. There was no pain in the head; but he complained of pain in the abdomen, about two inches above the umbilicus. On the seventh of April, vomiting commenced; pulse was 130, respiration 30, and both irregular. Seventeenth of April, died in convulsions. Preceding the fatal termination, there was sighing respiration, intermittent pulse, and convulsions for twenty-four hours; there was no strabismus. The abdominal organs were healthy, the upper hemisphere of the brain healthy. From the pons varolii to the first pair of nerves, there was some deposition of fibrin. Under the microscope, there appeared about the fissure of Sylvius a few tubercular cells. This was a case of tubercular meningitis, or by the old nomenclature, acute hydrocephalus. Two points of interest in this case are the absence of strabismus and the retention of consciousness. Of nineteen cases of hydrocephalus, nine have been among children of strongly marked scrofulous habit, leaving no doubt that there were tubercles in the brain.

EDITORIAL DEPARTMENT.

PERISCOPE.

SULPHURIC ACID IN DIARRHŒA.

Some years ago we called the attention of our readers to the value of sulphuric acid in the treatment of diarrhœa. In 1852, Dr. John L. Vandervoort, of New York, speaking of the prevalence of the disease, particularly among children in that city, says:—

"Failing with the remedies usually employed, I resorted to the use of sulphuric acid, as suggested by several London and provincial physi-

cians. It was first given in an obstinate case at Yorkville; the child was teething, and was naturally robust and healthy. For several weeks he had had more or less looseness of the bowels, with occasionally slight vomiting, and discharges of mucus tinged with blood. Strict regimen and minute doses of blue mass and opium failing to exercise more than temporary effect upon the disease, and observing that his gums had become spongy and disposed to bleed upon the slightest touch, I changed his treatment and gave him four drops of the acid in a wineglassful of sweetened water several times a day. Seeing him again in a couple of days, I found him much improved; his discharges were less frequent; there had been no more vomiting or bleeding from the gums. The same treatment was continued for a week, when the child's health was quite restored. In several other cases of similar character, the acid was given, and with like happy results; and within a few days an infant, which had been troubled with excessive looseness of the bowels for nearly a week, was cured by a few doses.

"One very great advantage which this remedy has over those in general use, is its agreeable taste, resembling in this respect lemonade; hence it is well adapted to children whose aversion to medicine cannot readily be overcome."

Mr. Sheppard, of England, records his experience with it in upwards of fifty cases, many of them very severe. In only one instance did it fail, and in that, other treatment was alike unsuccessful. His experience led him to the following conclusions:—

"1st. It is more *efficacious* than alkalies, opiates, and astringents, in a proportion greatly exceeding ten to one.

"2d. It is *more rapid* in its action (especially in children) in a proportion greatly exceeding twenty to one.

"3d. It seems to act in a more rational and (if I may so express myself) scientific manner, by increasing the *tone* of the mucous membrane of the alimentary canal, rather than by simply astringing its pores.

"4th. The worse the case, the more rapid and marvelous seems to be the cure; a most striking feature, as compared with the treatment by chalk and opium."

In the *Medical Times and Gazette*, Mr. William Griffith again calls attention to the remedy, claiming priority in introducing it to the notice of the profession in 1851. He says, given by itself it allays thirst, subdues sickness, arrests vomiting, and stops the purging; and so rapid are its effects, that it frequently cures by a single dose.

Dr. Andrew Clark says of his experience with it in the London Hospital:—

"I have lately had the opportunity of renewing our therapeutical experiments upon diarrhœa, and with the same results as before. Sulphuric acid has been tried in contrast with chalk, opium, nitrate of silver, copper, bismuth, lead, pernitrate of iron, and others, singly and in combination; and it has come out of the trial demonstrably as a more rapidly efficient agent than any of them in the cure of diarrhœa; but it is much less effective alone than in combination. Given in the manner prescribed below, it has succeeded in curing 74 per cent. of cases of diarrhœa within forty-eight hours.

"When the stools are scanty and frequent, the administration of the acid is preceded by a dose of castor-oil. When they are abundant and watery the acid is begun at once:—

℞.—Acid. sulph. aromat.	♏xx;	
Tinct. opii camph.	ʒj;	
Ætheris chlorici,	♏x;	
Spirit. menthæ pip.	ʒss;	
Syrupi rhœados,	ʒj;	
Decoct. hæmatox. ad	ʒj.	M.

Or, if the mixture is to be kept, some aromatic water. To be given every four, five, or six hours, according to the urgency of the diarrhœa. The object of the aromatics in the formula is the correction of the fecal fermentation which is one of the chief conditions in the production of diarrhœa. In some cases, the second or third dose succeeds in checking the disease, and then the patient is troubled for a day or two with pinching pains in various parts of the bowels. These are best relieved by a small dose of castor-oil with an aromatic. The acid is rarely successful in phthisical or dysenteric diarrhœa, but it is so in the early stages of these complaints."

M. NÉLATON ON OVARIOTOMY.

French surgeons have been, or affected to be, very incredulous regarding the claims of ovariotomy as an accepted operation. The principal surgeons almost without exception condemned it without reserve. M. Nélaton, however, not satisfied to condemn an operation which was so often and so successfully performed in this country and in England, visited London recently, on the invitation of Mr. I. Baker Brown, where he investigated the subject much to his satisfaction.

A correspondent of the *San Francisco Medical Press* furnishes that journal with a report of M. Nélaton's remarks on his return from London, in which he gives his observations, with notes of five cases that came under his notice. M. Nélaton arrives at the following conclusions:—

"I am of opinion that ovariotomy should be practiced, but it remains to be determined under

what conditions. As for me, this is what I should do :—

"1. In presence of multilocular cyst, at its debut, before it has occasioned grave accidents, I should abstain from the operation. Because there are examples of the tumor remaining stationary for years, without causing even distress.

"2. I should also abstain, in case of an old cyst, which has undermined the constitution of the patient.

"3. I think the opportune moment to be, when the cyst commences to swell up rapidly, and the danger of serious accident is imminent. Then, and then only, would I operate.

"I would invoke surgeons to disengage themselves of all sentiment in this question. They must reason with strict logic—examine, observe the patient attentively, and when the moment arrives when the danger appears imminent, draw a serious parallel between the dangers of the disease and the resources of their art."

VERATRUM VIRIDE.

This remedy, which was recently the subject of a paper read by Dr. W. B. Atkinson before the Philadelphia Co. Medical Society, and of a discussion thereon, has its earnest advocates, but it also has its opponents.

Dr. E. Platt, of Rhinebeck, New York, three years ago furnished an article to a New York medical journal, in which he says :—

"From the trials that I have made with it during the past two years, I have sufficient proof that it is a powerful sedative, and one that sometimes acts most unexpectedly with great and dangerous energy; and I am very much surprised that, of those who have used and recommend it, no one, so far as I have noticed, says anything of its occasionally dangerous effects; and my object in this article is to call the attention of practitioners to these; for I can safely assert, that with no medicinal agent that I ever used, have I knowingly come so near killing my patients. It often exerts great and speedy control over the nervous system, and I have repeatedly seen it produce, after a very few doses of the ordinary size—five drops of the saturated tincture—vomiting, faintness, vertigo, and coma, to an alarming degree.

"Dr. Norwood, of South Carolina, who, in the *Southern Medical Journal*, seems to have been among the first to call public attention to this article, recommends it as useful, not only in inflammatory diseases, but also in *typhoid fever*. How an agent so entirely sedative as this can be beneficial in a disease in which the vital forces are already in a state of depression, is to me inexplicable upon any principle with which I am acquainted; and if Dr. Norwood, or any one else, has been successful with it in curing that disease, it must, I think, have been a very different kind of typhoid fever from that which I have been in the habit of recognizing under that name. From what I have seen of the effects of veratrum, my inference is. that blood-letting would be a remedy quite as proper in typhoid fever, and, indeed, likely to do the least harm of the two. Dr. Norwood and some others seem to think that, with it, slowness of the pulse can be secured at will. This may be true; but it does not, by any means, follow that therefore it is a remedy adapted to the cure of those diseases in which rapidity of pulse is a characteristic symptom. In my opinion, it is an unsafe remedy in any disease in which debility is prominent. The slowness of the pulse that is gained by veratrum is at the expense of the strength of the patient, and in typhoid fever this cannot be afforded without risk of serious injury. In many diseases of an inflammatory character, and those that may properly be denominated dynamic, in which I have employed it, it has often seemed to exert a favorable influence on the disease; but those very marked and conspicuous good effects, which some practitioners seem to have derived from its use, it has never produced in my hands. I, however, believe it to be a useful addition to the armory of the cautious physician. From the trials that I have made with it, the following are my conclusions: 1st. That it is a direct and powerful sedative, much more speedy in its action, and more potent than digitalis. 2dly. That its use should be confined to inflammatory and dynamic diseases. 3dly. That even in these it should be prescribed with great caution, and its effects carefully watched, if we would avoid the unpleasant contingency of being sent for in great haste, perhaps in the middle of the night, with the unwelcome message that our patient is supposed to be dying."

Dr. Platt supports his objections by giving several cases in which the remedy was used and followed by alarming results. It is to be observed, however, that the remedy was very judiciously discontinued at a proper time, and that no ultimate harm resulted. We have had a similar experience in its use, but never had, or never heard of any one else having, a case result fatally from its use, while we have often known it to be used with very great advantage. It is very true that *caution* must be observed in its use. But, then, it is some satisfaction to get hold of a medicine that must be used cautiously. There is so much namby-pamby stuff used these days called medicine, that doctors have really little to do in observing the *effects* of remedies. A prescription is expected to "do the thing," when really it matters very little, sometimes, whether it is taken or not.

If doctors used more potent remedies in appropriate cases, and watched their effects more, it would be better for the patients, oftentimes, we think, and not a whit worse for the doctors. The

"expectant" plan of treatment has, we trust, had its day, as regards a large class of diseases. The judicious physician will be as bold as a lion in one case, and as gentle as a lamb in another.

We have frequently had druggists refuse to compound our prescriptions until they could see us, thinking we had committed an error. Remedies of some potency are often needed, and they should be judiciously administered, not discarded.

CASES OF EXTRAORDINARY FECUNDITY.

In a communication before the Boston Society for Medical Improvement, published in a recent number of the *Boston Medical and Surgical Journal*, Dr. Warren collects the following well-authenticated instances of extraordinary fecundity:—

"At a late meeting of the Society, the question arose as to how many children had ever been born at one birth. Dr. Warren remarked that many years ago, while traveling in England, a house was pointed out to him in which, it was said, were then living five children born at one birth. At a subsequent meeting, Dr. Warren read an abstract of several published cases, as follows: Ambrose Paré, who may be believed when he quotes from his own experience, (lib. 25th, cap. 3d,) states that in his time, in the parish of Seaux, near Chambellay, there was a noble family of the name of de Maldemeure. The wife of the last lord of Maldemeure gave birth, within a year after her marriage, to twins; the next year she had three children; the third year, four; the fourth year, five; and the fifth year, six. In this last labor she died, and of the six children one survived, and is now lord of Maldemeure.

"Another case of six children at a birth is copied from the *Gazette Médicale* into the *American Journal of the Medical Sciences*. (vol. xii., for the year 1833.) 'On the 30th of December, 1831, the wife of a man named Dernian Ploson, living in the village of Dropin, in Bessarabia, was delivered of six daughters, (the fruit of one pregnancy,) all living, and only a little smaller than the usual size of children at birth, with the exception of the last, which was much the least. The mother is not quite twenty years old, and is of a strong constitution. The whole six children lived long enough to be baptized, but died in the evening of the day of their birth. The mother suffered from a severe indisposition subsequent to her confinement, but is now quite well.'

"Dr. Garthshore (*Phil. Trans.*, b. 77, 1787) reported a case which occurred in the practice of John Hull, surgeon. On the 25th of April, 1786, Margaret Waddington, a healthy woman of twenty-one years, gave birth to five girls. Of these, two were alive, but soon died; one was but recently dead; and the other two were putrid. There were five distinct sacs and cords, but the five placentæ were so fused together as to appear but one. The portions of placenta belonging to the two putrid children were also slightly putrid.

"Dr. G. states that in the *Commercium Literariam Norimbergense*, for the year 1731, two cases are reported of five living children at one birth. Of these cases, one occurred in Upper Saxony, the other near Prague.

"Dr. G. also states that two foreign medical men, whom he had met in London, related to him cases of five children at a birth, which were said to have occurred near Ghent and near Paris. Of these cases he heard nothing more, and felt in doubt as to the accuracy of the report.

"In the list of births recorded in the *Gentleman's Magazine*, two cases are given of five children at a birth. The first occurred October 5, 1736, in a dairy-cellar, in the Strand, London. Three of the children were boys. The other case occurred in March, 1739, at Wells, in Somersetshire. The children, four boys and one girl, were all christened, and reported likely to live.

"Two or three of the following cases are quoted from Dr. Paul F. Eve's curious and interesting work of Remarkable Cases in Surgery.

"(*American Journal of Medical Sciences*, vol. iv. 1829.) Case of five children at a birth, furnished by Dr. Weiss, and communicated to the clinique by M. Carus. A woman, twenty-seven years of age, of medium stature, who had been married five years, after having given birth to twins two years before, was put to bed with five children. The regular period of pregnancy was past, and nothing in particular occurred, except that the woman felt herself more feeble than usual, with less inclination to eat and sleep. The abdomen had been very much distended, especially on the right side. Movements had been felt, chiefly on the left side. The birth of the first child was very easy, and took place soon after the formation of the watery sac. The others came more slowly, and the last was much the most difficult birth. Each was inclosed in a separate sac, and was immediately followed by its particular placenta. All were born with the head presenting in the first position. The first two were boys, then a girl, next a boy, and then another girl. Not one of the children survived the third day. Their length varied from 15½ to 16½ inches. The second boy weighed less than two pounds. Although all were regularly formed, they did not appear to have attained perfect maturity. With the boys, the cord was 16 inches long, but only 12 with the girls; the pulsation of the cord could scarcely be perceived at the moment of birth. The children had an old look, the voice was tremulous, they slept continually. Their temperature was very low. The mother soon regained her health.—*Gemeinsame deutsche Zeitschrift für Geburtskunde.*

"(From the London *Lancet*, vol. xxxvii. 1839, p. 743.) Case of a woman pregnant with five children. Dr. Evory Kennedy produced five fœtuses, with their involucra, the product of a single abor-

tion, at the meeting of the Dublin Pathological Society, held on the 14th inst. The patient had been attended by his late assistant, Dr. Thwaites, and pupils of the hospital, and the facts of her case were accurately noted, so that deception was impossible. The specimen produced, Dr. Kennedy stated to be the multiparient conception of a female, who aborted when, as she stated, she was three months gone with child. The case was one in which there appeared to be three distinct ova; two of these were twins, the third was single, so that five fœtuses coexisted in utero. On examining the preparation, Dr. Kennedy remarked that, closely viewed, it would be found that those on each side differed from the centre one. Each of the former possessed a common placenta, and membranes common to both, with an intervening septum; but the centre one is distinct and perfect in itself, having its own placenta and membranes. Some persons have been disposed to question the occurrence of these multiparious births; indeed, it must be acknowledged that the popular opinion, and even recorded cases, on the subject, are sufficiently extravagant; as, for instance, the Countess of Hannenberg's case, in which it was stated that 365 children were produced at a single birth. But, without taxing our credulity in these cases too far, we have, undoubtedly, a few well-authenticated instances on record, in which women have given birth to five children at a time. One of these, Guisseppe Califani, occurred lately at Naples; and we have the details of another, which took place in Franklin County, in America, about twelve years ago, recorded by Dr. Paddock. There is also said to be a similar preparation in the British Museum. It is extremely curious and interesting, as connected with the history of multiparous births, that in this respect Ireland preponderates over all other nations, and that the Irish are unequaled in the ratio of their fecundity. The proportion of twin cases in Dublin is one in sixty; in America (where, it is to be recollected, there is a large number of Irish emigrants) the proportion is one in seventy-five; in London it is one in ninety-one; while in France, '*longo intervallo*,' it is one in one hundred and forty. In proof of the rarity of five twin children, Dr. Kennedy further remarked that, out of 140,000 cases recorded in the Lying-in Hospital of Dublin, there is no instance of five children at a birth. There is one case of four, but none of five. It is a curious fact that in the American case the mother was an Irish woman, and had recently arrived in America. It may, perhaps, be considered equally curious that in the case detailed by Dr. Kennedy, the father was a man of small stature, aged about thirty, without any remarkable personal development, and by trade a tailor! The woman, the subject of the present memoir, whose name is Sarah Hickey, is twenty-eight years of age. She was married about two years ago, and within nine months after brought forth her first child. The conception was uniparient. After the lapse of six months, she again conceived of the fœtuses alluded to, and observed that during the pregnancy she increased very rapidly in size, and suffered very considerably from bearing-down pains, which rendered walking or standing almost impossible. She had constant sickness of stomach—a symptom generally looked upon as an evidence of compound pregnancy. As to the abortion, it would appear to have been produced by inordinate distention of the uterus for its period, which, in its turn, led to parturient efforts, as the ova presented no morbid appearance. The fœtuses, which are all males, do not appear to exceed the development usually observed about the second month. And as Mrs. Hickey menstruated on the 24th of May, and miscarried on the 26th of August, it is more than probable she over-calculated the duration of her pregnancy. This preparation is in Dr. Kennedy's Museum, in the Dublin Lying-in Hospital.

"Dr. Warren stated that he had received the following account from a lady in New York, who had visited the mother and children, of a case of the birth of twelve (12) living children in the space of 42 months, (3 years 6 months.)

"Mrs. M., thirty-two years of age, was married at fourteen. Her first child died. She then had twins, one of which lived a month, the other six weeks. Then twins again, both of which died. She then had a child, who is now a fine healthy girl, fourteen years of age. She then miscarried with triplets. Afterward she gave birth to 12 living children, in the space of about 42 months, in the following order:—

July 24th, 1858	one (1)
June 30th, 1859	two (2)
March 24th, 1860	two (2)
March 1st, 1861	three (3)
February 13th, 1862	four (4)
Total	twelve (12)

And in all, 21 children in 18 years.

"The woman has never been confined to her bed more than three days after delivery. The children are all remarkably healthy and well developed for their years."

OVARIOTOMY FOLLOWED BY TETANUS.

Dr. E. S. Cooper, of San Francisco, records a fatal case of ovariotomy in which tetanus was the cause of the fatal termination. The patient was doing exceedingly well—better than other cases that had been operated upon by Dr. Cooper—until the seventh day, when the woman's husband, an ignorant Irishman, insisting that the patient needed fresh air, opened the window and door of her apartment, and kept her in a draught of chilly damp air until she was perfectly chilled. Tetanus soon supervened, and the patient died on the ninth day after the operation.

THE MEDICAL AND SURGICAL REPORTER.

PHILADELPHIA, SATURDAY, MAY 31, 1862.

THE "CRIMINAL" INSANE.

Government is not without its responsibilities, and it is the glory of civilized governments that these responsibilities are met and discharged in a humane and Christian manner, that is, in accordance with the teachings of the Saviour of men. Ours is one of the most intelligent and enlightened nations of the world. It should, therefore, be sufficient for our legislators to know the wants of the community, and the demands of the age, to have them supplied with reasonable dispatch.

Within a few years there has been a revolution of ideas in regard to provision for, and treatment of, the insane. Hospitals have been provided, and, in the main, they are now placed under the care of medical men, instead of in the charge of "keepers," and are subjected to such treatment and restraint as are calculated to restore them to health, if that be possible, or, at least, to render their condition as comfortable as may be.

Much yet remains to be done, however, before this work will be perfected. Last week we called attention to the wants of the insane of the *middle classes*—to the want of properly-constructed institutions, where all the advantages of modern skill and science can be brought to bear in their treatment at a *moderate expense*, thus avoiding the necessity of their being sent to almshouses.

There is another class of insane whose condition is truly deplorable. We refer to the "criminal" insane. The penal code of France says:—

"There is no crime nor fault, when the party accused was in a state of insanity at the period of committing the act."

On the statute books of the State of New York it is held forth that

"No act done by a person in a state of insanity can be punished as an offense, and no insane person can be tried and sentenced to any punishment, or be punished for any crime or offense committed in the State."

The principle laid down in the laws of France and New York is undoubtedly correct, is the sentiment of the age, and if not expressed on the statute books of other nations or States, should be, and acted upon immediately. The admission of the principle carries with it an obligation to make adequate provision for this unfortunate class. But what are the facts? Only one State of this Union has made any proper arrangements for the care of the insane who have committed acts which render them liable to criminal prosecution and punishment. In all other States, and, so far as we are informed, in all other countries, infraction of law for which the individual may be entirely irresponsible, exposes him to the penalty of incarceration in a county jail, or in a penitentiary, where he is subjected to the same government and restraints that is meted out to the sane, and where he is liable to be punished in various ways for contumacy. Or else, if the insane condition of the individual is recognized, he is very improperly sent to the State Hospital for the Insane, or to a county almshouse. Improperly, we say, because in these institutions he must mingle, more or less, with a class whose insanity does not impel them to the commission of acts which come under the cognizance of the laws of the land. The direct influence of such an association is bad, and this class should not, any more than the community itself, be subjected to danger from the insane impulses of such persons.

We take it for granted that there can be no question of the propriety of restraining of their liberty those whose insane and violent impulses render life or property unsafe. If such persons have actually committed unlawful acts, if they have been acquitted of the penalties attached to such infractions of law on the plea of insanity, they should not be allowed to go at large, but should be securely confined in an institution where their malady can be properly treated, and *kept there* until there is evidence of a cure having been effected, or, if insanity proves to have been a feigned issue, remanded to the custody of the law, to suffer the penalty of their crimes.

We have no means of knowing how many insane persons are now confined in the penitentiaries and jails of this State for the punishment of crime, but that the number must be considerable we conclude from testimony that is before us. In 1845 the philanthropic Miss D. L. Dix published a memorial to the Legislature for the erection of a State hospital for the insane. Some of the strongest arguments in that memorial were founded on the fact that Miss Dix found many insane persons confined in the county prisons on various criminal charges, on whose behalf she plead with the Legislature to provide an institution where they might receive proper treatment.

In response to her appeal two institutions have been founded, one at Harrisburg and one at Pittsburg, but the State has recently adopted the policy of making these institutions *hospitals* instead of *asylums*, and, in consequence, the "criminal" insane have been remanded to the counties from whence they came, and are again subjected to the horrors of cell confinement in county prisons. This retrograde movement is not at all creditable to the State. The change of policy in regard to the State Hospitals may have been, and, in our view, was proper enough, but it should have been anticipated by making separate provision for this unfortunate class of the insane.

In her memorial referred to above, Miss Dix narrates the results of a careful examination into the condition of the almshouses and jails of each county in this State. At that time the number of insane confined in the jails of the several counties was as follows: Lancaster, 3; York, 1; Adams, 2; Somerset, 3; Westmoreland, 1; Fayette, 2; Washington, 1; Butler, 1; Mercer, 1; Crawford, 1; Erie, 1; Warren, 1; Venango, 1; Armstrong, 1; Cambria, 1; Huntingdon, 1; Juniata, 1; Centre, 1; Monroe, 1; Lebanon, 1; Chester, 2; total 28. The number of insane in the jails of Philadelphia, Dauphin, and Alleghany is not given, nor in the Eastern and Western Penitentiaries, though the remark is made that within two years *twenty-seven* well attested cases of insanity had been brought to the Eastern penitentiary. At the present time there are several insane persons confined in the prison of this city, on various charges.

We are glad to say that there are some indications that ere long adequate provision will be made in this State for that class of insane persons who have rendered themselves obnoxious to the penalties of violated law. When it is done, we trust that it will be done with liberality.

New York has set an example in this respect which other States should not be slow to follow. In 1857, the Legislature of that State set apart a space within the walled inclosure of Auburn Prison, on which a large, well-constructed building has been erected, devoted entirely to the confinement and treatment of insane convicts. It consists of a centre building, sixty by forty-four feet, and two wings, one hundred feet long, with transepts of sixty-six feet. The buildings are all two stories high, with a basement. The institution is officered as all hospitals for the insane are, and conducted on the general prineiples that govern such modern hospitals. Dr. Edward Hall, the superintendent, in his first annual report in 1861, says:—

"The building is, in most respects, very substantially constructed; perhaps more so than necessary for patients under constant watch. The halls are built according to the most modern plan, with single tiers of sleeping-rooms; and the great thickness of the partition walls is such as to admit of but sixty-four sleeping-rooms in both wings, though the size of the building seems to indicate a larger number."

In the construction of the building, therefore, we should judge that economy had been sacrificed to appearance. This is a great mistake. Some regard ought, of course, to be had to architectural appearance in all public buildings; but in buildings for this purpose, at least, that style of architecture should be selected which will be the least costly, and yet not discreditable to the State. In all other respects, also, a due regard should be had to economy in the construction of such buildings.

The Asylum at Auburn was opened for the reception of patients some time during the year 1859, since which time to the first of October last, ninety-nine patients had been accommodated in the institution. At that date, there were sixty-nine patients under treatment. The superintendent complains of the Asylum being crowded, "having from seven to twelve more patients than there are sleeping-rooms."

Dr. Hall, we are glad to see, endeavors to give *employment* to his patients. He says:—

"The garden and grounds have furnished useful and beneficial employment for a large number of our inmates. The vegetable garden has yielded a substantial return in the abundance of good fruit and vegetables used during the summer and in store for winter. The amount of these will be shown in one of the tables.

"The flower garden has been a source of great pleasure and delight; has furnished agreeable employment to many, and has been self-supported by the sale of seeds and roots, and prizes obtained at the county fair.

"We have just finished an exercise-yard, with shade-trees, built with secure fences, fourteen feet in height, which will be highly beneficial for those unable to work, yet who need exercise in the open air, and will afford those under restraint privileges of air and exercise which we were previously unable to provide as often as desirable.

"The labor of grading and preparing this yard and of building the fence was performed (with the exception of one day's work) by the patients and attendants.

"Since April the patients have accomplished,

under the direction of the attendants, a large amount of useful and necessary labor, besides their work in the gardens. They have painted (with less than ten days additional help) all the outside wood-work of the premises, excepting the windows, and including the gutters; and have put on nine hundred feet of roofing. They have also done nearly all the carpenter and blacksmith work of the place, and have assisted in all departments of domestic labor, especially in washing, ironing, and house-cleaning. We cannot expect much positive pecuniary benefit from the uncertain and fitful labors of lunatics, but we are enabled to save, in various ways of labor, quite a large sum yearly. Their employment in useful work becomes also beneficial and curative to themselves, by furnishing physical exercise, diverting their minds from their delusions, proving to them our confidence in their ability, and encouraging them to assume a degree of judgment and responsibility which is salutary and elevating."

We have made this extended notice of the New York Asylum for Insane Convicts, in order to give our readers an idea of the character, appointments, and management of the only institution of the kind that exists in this country. The obligations of the country to humanity will not have been discharged until each State has one or more such institutions, and adequate provision is made for all who may become amenable to violated law while under insane impulses. Such persons should be formally tried, and if the crime is proved to have been committed while the person was insane, or by an insane person, he should be sentenced, *not* to the jail or the penitentiary, but to the asylum for the criminal insane, and *kept there* until there is evidence of amendment or cure.

EDITORIAL NOTES AND COMMENTS.

Friends' Asylum for the Insane.—This institution, which is pleasantly located at Frankford, in the upper part of this city, has concluded the *forty-fifth* year of its existence. Its superintendent, Dr. J. H. Worthington, in the last annual report, says:—

"Originating at a time when no institution existed in this country, that could serve as a model for its plan of construction, the founders of the Asylum showed, by the quantity of land purchased and by the amount of space allotted to each patient, in the construction and general plan of the building, a degree of liberality which has probably not since been surpassed."

On the subject of restraint, Dr. Worthington says:—

"We have not in any case, for several years past, considered it needful to apply mechanical restraint for the prevention of acts of violence and destruction, and we have only resorted to it in any form in cases where severe bodily disease or debility has rendered a recumbent position indispensable to the safety of the patient's life."

During the past year there were seventy-six patients under treatment in the asylum; of these four died, ten were discharged, and sixty-two remained, of whom twenty-six were men and thirty-six women. Fifteen patients were admitted during the past year.

Of the ten patients discharged, six, viz., three of each sex, were restored; one man was much improved, and one man and two women were stationary.

Medical Department University of the Pacific.—The fourth commencement of the Medical Department of the University of the Pacific, at San Francisco, took place on the 13th of March last. There were five graduates.

The number of graduates of this school are as follows: Two the first session; one the second; six the third; and five the fourth. The *Medical Press* says:—

"The number of graduates will always be smaller, in proportion to the class, than in most medical colleges of the United States, in consequence of the rigid examination *every* one has to pass, regardless of influence, money, or favor."

The Turkish Bath.—This bath, about which so much has been said of late, produces an unnatural excitement and stimulation of the skin, whose reactionary influence must be prejudicial. It would seem somewhat to resemble the exhilarating effect of alcoholic and other stimulants. There is a period of pleasurable excitement, followed by lassitude and depression. In short, the Turkish bath is the abuse of a very necessary and healthful sanitary and hygienic measure.

The *London Lancet* has the following very sensible remarks on the subject:—

"The application of heat and friction bears no relation to cleanliness; the most perfect cleanliness may be attained by soap and water. The stimulation of the skin to renew its epidermal coat by steaming and rubbing is not a process of cleansing, any more than blistering it, or effecting a similar renewal with tincture of iodine. Nature has been so bountiful and provident as to provide the body with the means of resisting great extremes, whether of heat or cold. The processes of life can only be carried on at a temperature nearly invariable, or varying within very narrow

limits. To combat cold climates there is a great power of producing heat internally in the body; and to combat high climates the body is provided with an evaporating apparatus—the skin. That profuse perspiration which some gentlemen regard with such triumph, is the protest of nature against their hot chambers. It should be their humiliation. If they could carry out their theories, and act upon the body by heat as they would upon meat, they would, indeed, produce an alteration of temperature in the tissues which would effect a cure of all diseases—a *dead* cure; their patients would be *mort guéri*. But, fortunately for themselves, they cannot prevent the compensating balance which nature has placed there to oppose great alterations in the temperature of the body. They cannot remove it; but they may overstrain and crack it. The palpitating heart, the rapidly expanding lungs, may yield beneath the strain, and blood may flow, fainting may follow, or death result. This is what medical practitioners know, and would feel themselves culpable if they lost sight of. Nothing seems more unlikely and undesirable than that the Turkish bath should ever become the habit of a large portion of our population. It would serve no good purpose for healthy men, and would injure very many unhealthy men."

Since the notice of the reported successful administration of clover (*trifolium in fœno*) in hooping-cough, the remedy has had a very extensive use in this city and elsewhere. We have heard of a number of instances in which the remarkable statements, in regard to the entire relief of the spasmodic character of the cough, seem to be verified.

From those practitioners who have tested the remedy in a number of decided cases, reports of their experience would be acceptable. The reference to the remedy appeared in the issue of April 12th, page 49 of current volume.

CORRESPONDENCE.

Foreign Correspondence.

Hotel Dieu. Assistant Professor Empis, who lectures in place of M. Rostan.

PARIS, May 11, 1862.

Case in which there is a large effusion into the pleural cavity, occupying its lower fourth, and rendering the percussion over that part perfectly flat. On auscultation, no sound whatever is there audible. Above there is a feeble blowing sound. Treatment is to apply a very large blister, and if this has no effect whatever, to puncture.

Case of a man, thirty-four years old, who, in January last, was attacked by a typhoid fever, which lasted, with its nervous symptoms and delirium, for six weeks or two months. In the month of March, he was convalescing without any nervous symptom, and was beginning to regain his strength, although still very feeble, when suddenly, one day, he complained of seeing double. This existed only as regards objects near him. Those at a distance, he saw very indistinctly. The symptom lasted eight days, and then disappeared entirely.

Double vision is often produced during convulsions, on account of the strabismus which the abnormal action of the muscles causes. In this case we ascribed it to paralysis, either of the third or of the sixth pair of nerves. As the pupil was a little dilated, it was probably the third pair. There must then have been a little external strabismus. A short time after this, he lost his sense of taste altogether for a few days, after which it reappeared, and he soon left the hospital. After going home, he did very well for fifteen days, at the end of which time he began to experience a slight sensation of formication in his fingers, which, two or three days afterward, extended up the arms, and began in the feet. At this time the mobility was not affected; but in a few days more, he found that he became very easily fatigued, even by walking across the floor, and, at last, he could not even dress himself. In this condition he has come back again to the hospital. His intelligence is clear; his vision perfect. He retains the sensibility of the extremities, although troubled still by formication. He also has some power of motion. He cannot walk across the ward if not supported; he can carry a fork to his mouth, but is not strong enough to lift a glass of water. There is no symptom of paralysis of the rectum, nor or of the bladder.

Paralysis following acute diseases is by no means uncommon, and it may be either of mobility or of sensibility. A theory has been advanced that each disease has its own special kind of paralysis, but this has never been proved; and experience would seem to be against it, although enough cases have not been collated to enable us to come to a positive conclusion. The case which we are discussing would seem to weigh against the idea; for it exhibits the symptoms supposed to be peculiar to the paralysis which follows diphtheritis, although they have been observed nearly the same after variola and pneumonia.

The prognosis is favorable. These cases almost always recover entirely. We are giving him quinia and iron. Sometimes gentle gymnastic exercise is useful.

I have described so many hospitals to you, and there are so many here, that, both for your sake and my own, I shall not do much more of it. The newest and handsomest in Paris is the Hôpital Lariboisière, at the northernmost extremity of the city, and for that reason not much frequented by students who usually live on the south side of the Seine, a couple of miles off. It was founded by Louis Philippe, who intended that it should bear his name; but, about the time of his overthrow, a Countess Lariboisière left $1,200,000 to the City of Paris to build a hospital to be called after her. The opportunity of changing the name of the Hôpital Louis Philippe was too good to be let slip, so the funds were applied to it, and a new name given which would not recall the fallen dynasty.

The great attractions there are Chassaignac and his écraseur. On the occasion of my visit several months ago, I saw him apply it to a case of paraphymosis, which he had great difficulty in reducing previous to the operation. He afterward applied several sutures. Chloroform was given to this patient, but not so to an unfortunate man who had three moxas applied to his back. Each moxa was nothing more nor less than a small piece of camphor, which, when set fire to, made an eschar of four or five times its own diameter.

In the ward were a number of ulcers of all sizes and characters; but the same treatment was applied to all. It was a white application, which was put on with a small mop, and the nature of which I did not discover.

I have observed one other instance of uniformity of treatment here, in the case of Pelletan at La Charité, who went around his wards very fast, prescribing nothing but diet and some sort of baths. As that was the remedy for everything, of course there was no use in waiting long to ask about symptoms.

In Chassaignac's wards, the only other case worthy of notice was that of a man who had had the operation of depression of the lens for cataract performed on him; and for the violent inflammation which had supervened, a little bladder full of ice was kept on each eye.

I shall now give a short account of a lecture of Velpeau:—

1. Case of a young man, twenty-three years old, with retention of urine; came on very suddenly. He positively denies having had gonorrhœa. There is an odor of gangrene and great tension of the perineum. We have here evidently an extremely grave complication.

The question arises, which occurred first, the retention or the gangrene? The retention certainly very often precedes, but it takes some time for the other symptom to follow. In *this* case, if we consider the gangrene as having caused the retention, all the symptoms are explained. This is the more probable as a small piece of wood has been discharged from the abscess. It is most likely that it found its way into the perineum from the rectum, and thus caused all the difficulty.

2. Case, young man of twenty. Tumefaction of right shoulder, half the size of a man's head; painful, great tension; skin of a bluish color and almost varicose. Doubtful fluctuation. No known cause. The swelling began ten days ago. Before that time the health was good.

Diagnosis, phlegmon; and without doubt there is a very deep focus. I plunge a bistoury to a depth of four centimetres (1½ inches) and then put my finger into an anfractuous cavity. This phlegmon may have originated in too great exertion of the muscles, but in that case the inflammation would have probably been more frank. He denies, also, having over-exerted himself in any way. Arteritis, or ulceration of a rib or of the scapula, may have originated it, although the absence of previous tenderness would combat those causes. My finger cannot reach the end of all the anfractuosities here, and I should not be surprised if another incision should become necessary.

3. Post mortem of a case of strangulated hernia. Intestine perfectly black. The patient died in twenty-four hours from the first bad symptom, exhibiting all the appearances of cholera.

Case 4. Woman, who has had three children, enters the hospital with a tumor of the breast, of the size of two fists. Fluctuation at the summit, but an incision has produced no diminution in its size, and gave exit to no pus. The general consistence is lardaceous—a little as it would be in a case of chronic inflammation. The tumor is intimately connected with the gland and with the skin. It began a year ago. Probably a variety of encephaloid. Such a disease is mortal, and an operation is therefore necessary, as

the tumor will kill the patient unless itself killed by the physician. Medical treatment is useless; surgery alone can destroy the malady. The operation was here performed by M. Velpeau, assisted by a couple of dozen residents, who all tried to shut out the view as much as possible from the students on the benches, so you must excuse me from describing it. M.D. ABROAD.

Domestic Correspondence.

VERATRUM VIRIDE.

RHINEBECK, N. Y., May 23, 1862.

EDITORS MED. AND SURG. REPORTER:—In the last number (May 17th) is an article on "veratrum viride," in which there is an array of testimony in its favor, as a valuable therapeutic agent, that by many may be regarded as conclusive. My own opinion, however, is adverse to the forty witnesses named, and I concur entirely with Dr. C. A. Lee as to its "dangerous depressing influence, even in small doses," and with him I think it probable "that in one year it has caused more deaths than chloroform has since its discovery." Dr. McClurg, whom you quote, remarks that:—

"From the record thus presented of the powers of the veratrum, we may readily infer that cases should *frequently occur*, in which alarming results have followed its employment in a *careless or inadvertent manner*. Without attempting to detail any of these instances, we may remark that none of them proved fatal."

Physicians do not, I believe, report, at any rate I never saw such a one, that their patients die of the remedies administered; and to assume that whenever alarming results follow the administration of veratrum, it is owing to its careless or improper use, is wholly gratuitous. Whoever will examine the cases reported by me, in the number of the *Gazette* I send you, will, I think, hardly be able to come to such a conclusion.

The medical records show that many instances have occurred, in which a new remedy was supposed, by eminent physicians, to possess remarkable curative powers, that are now in oblivion, or only on the records. When digitalis was first introduced, as many certified to its wonderful powers, not only as a cure for dropsy, but also as a specific for incipient phthisis, as now vouch for the virtues of veratrum. Who now regards digitalis as of any value in consumption? And so of many other articles that might be named, which are generally forgotten and neglected as useless.

Being fully persuaded, from ample and careful experiments, that veratrum is a hazardous remedy, unless the physician who prescribes it remains with his patient, or is near at hand, as in hospitals, I wish to bear my testimony to what I am satisfied is the truth, your forty witnesses to the contrary notwithstanding. I therefore send a number of the *Medical Gazette*, containing two articles of mine on the subject, which I hope you will copy, or give the substance of, in the REPORTER.

Your obedient servant,

ELIPHALET PLATT.

ON VACCINATION.

COATESVILLE, PA., May 23d, 1862.

EDS. MED. AND SURG. REPORTER:—Upon reading your remarks on vaccination, in the last issue, I felt prompted, and now yield to the prompting, to write you my practice in selecting virus. Being convinced, while yet a student, of the possibility of syphilitic transmission by this means, (and who that reasons on general principles can doubt it?) I early resolved to be *very careful*.

I always try to satisfy myself of the healthy character of the parents in the first place, but this has to be done very cautiously, else the object will be defeated; for but few will give you any satisfaction, if they learn your drift. To inquire for the existence of a specific taint would be worse than useless: but if there have been *any* eruptions or constitutional diseases of even an approximation thereto in appearance or character, I reject at once.

In the second place, I do not collect matter from children under about three months old; and then from none who have had *any kind of eruptions*, or other affections which could by any possibility be construed to be, or resultant from a syphilitic taint. If there is the *shadow of a doubt*, I consider my patients entitled to the benefit of it, and *reject*.

By pursuing this course, I have thus far had no trouble, except that one is more liable to run out of "stock." When I have done so, I have nearly always been able to replenish from friends in the professional ranks, whom I know to be as careful as myself. A few times I have had to get of dealers, and, although going only to first-class houses, still I confess to feeling an aversion to using virus from such sources.

I may say that, as a matter of courtesy, I have

taken scabs from children's arms that I had vaccinated, when they had been saved for me by the parents (even, sometimes, at my request) that I have had no intention of using, but to destroy upon the first opportunity.

One word now as to the mode of preservation. I inclose the scab first in a piece of thin writing-paper, doing it up as a small powder, writing on it the name and date. This I inclose in a wrapper of tin foil, or sheet lead, done up in the same manner.

Practice has proven this to be a very convenient and effective mode of preservation, and as, so far as I know, it is original with and peculiar to myself, I submit it to the profession, convinced that those who try it will thereafter ignore wax, collodion, and all such things for this purpose.

Yours, respectfully,

J. W. Thompson, M.D.

Army Correspondence.

DISEASES ON SHIP ISLAND.

Dr. James H. Thompson, of the 12th Regiment Maine Volunteers, writes as follows to the *Boston Medical and Surgical Journal*:—

"My last communication was written on our arrival at Ship Island. Since then nearly every man in the regiment has suffered more or less from acclimation, and I propose briefly to note some of the phenomena which have presented themselves at our hospital.

"On the second day after our demarkation, twenty-four privates and officers were attacked with diarrhœa and dysentery, and so rapidly the epidemic diffused itself that nearly every man in the command was affected with it during the following three weeks.

"The cases of diarrhœa simulated dysentery, and often as early as the second day of disease exhausting quantities of blood were passed at stool, attended with tenesmus, the pulse feeble and frequent, the skin pale and cool, the expression of the features anxious; the tongue often from the first assumed a brownish appearance, and when it threw off its fur, became red, smooth, and gashed.

"After a variety of treatment, I found that astringents were of little avail; if the discharge was suddenly checked, it early reappeared in an aggravated form, and yielded only to an alterative treatment.

"Simple cathartics of ol. ricini or sulph. magnesiæ were given at the first presentation of the case, followed by—℞. Pulv. opii, pulv. ipecac., gum camphor, ää gr. j; hydrarg. pil., gr. ij. M. Ft. pilulæ, given p. r. n. Usually they were given every two, four, or six hours, with rapid amelioration of symptoms, followed by permanent convalescence. Rarely was the treatment continued more than four days, and often but one.

"All of these cases recovered. One case assumed the chronic type, and this I treated with alteratives as in the other cases, with the addition of pulv. ipecac., gr. i, every two hours, at the same time giving tonics and stimulants freely: mucilaginous injections were frequently given to allay the tenesmus.

"A permanent cure was effected after two weeks' treatment. The diseases most frequent are diarrhœa, dysentery, bronchitis, rheumatism, and typhoid fevers.

"I attribute much to change of climate, exposure to night air without proper protection, sleeping on the sand with water only one or two feet below the surface, improperly cooked food, the debilitated state of the command from the sequelæ of rubeola, and the long confinement on shipboard before reaching our destination.

"The island is one vast reservoir of pure water, the climate delightful, excepting the sudden changes of temperature attending the 'northers,' as the gales are called, when the mercury will go suddenly from 90° Fahrenheit to 40°, the wind blowing a gale, the rain pouring in torrents, and the lightning and its attending thunder terrific: I truly think I have known more vivid lightning to accompany a single Southern storm, than all that I have witnessed North during the last half dozen years, concentrated.

"The dews are very heavy—by ten o'clock P.M. the coats of the guards are as wet as though they had been exposed to a shower, and from this cause our tents, which were new when we came here, now two months since, are mildewed, and look like old tents; the tents of the regiments longest here are nearly worthless.

"Our typhoid cases have assumed a low type from the commencement. After an alterative we give tonics and stimulants freely, and have been enabled to save three-fourths of the cases.

"One case of variola came to us on the last trip of the steamer Constitution—a man whom we left with continued fever at Fortress Monroe. Four days out, the variolous eruption made its appearance. As soon as it came to the knowledge of the surgeons, he was isolated as well as circumstances would allow, and on arrival here was put into a tent half a mile distant from the encampment; and now, four weeks after, he is returned to duty.

"Of the three thousand on board the steamer, only one, a member of the 4th Wisconsin Regiment, contracted the disease from him. He died on the sixth day, of confluent small-pox. There is no fear of any further trouble from it.

"Parotitis has been very prevalent among the troops on the island; we have suffered very little from it.

"Heavy marching in the sand has ruptured quite a number, and in a large number has produced varicocele and hydrocele.

"From our experience thus far, the following deductions may be made or corroborated:—

"1st. Men from cities and large towns bear the fatigue and exposure of camp life much better than those from the country.

"2d. Men of medium size better than those stalwart fellows from whom so much was expected before going into service.

"There are now sixteen regiments on the island, and nearly all have had an experience corroborative of the above."

In the same journal we find a communication from Dr. Alfred Hitchcock to the Surgeon-General of Massachusetts. It is dated at Williamsburg, Va., May 12th, 1862. He says:—

"The past week has been one of hard work and interesting duty. Immediately after the battle at this place, we found ourselves at McClellan's headquarters, in this village, (or city,) and I was at once placed in charge as senior surgeon of the College Hospital. Dr. Bronson and two Confederate surgeons have assisted me. Mr. Wellman has kept the records, and assisted in the dressings. My record, yesterday morning, made up 275 Union patients, and 80 rebels — about one-half of whom we sent to Fort Monroe yesterday—and last night we received some 50 more. To-day we expect to send off the remainder, or nearly all of them.

"On Saturday I amputated at the shoulder-joint, and my rebel patient is doing well. We have a good many compound fractures, and one very interesting case of head injury, in a rebel captain, by a Minié ball. I removed a portion of the cranium—1¼ inches by 4 inches—with the dura mater and enough brain to materially diminish his fighting propensities, if he gets well —*i. e.* if there is any truth in phrenology—as it was in the locality of 'Combativeness.' Extracting bullets and dressing flesh wounds and fractures have constituted most of our duties. There were about 1000 rebel wounded, and perhaps half as many Union here when we arrived. I forgot to say that about thirty special surgeons came with us. Four churches, the court house, and many private houses in this old aristocratic seat of learning, have been occupied as hospitals. I should think there had been some ten or twelve thigh amputations in the whole corps since I arrived. All the movable patients in town will go to-day. The 'stumps,' and a few with mortal wounds will remain, and a few surgeons will be retained to take care of them. * * * The labor of months has been crowded into the last week, and every surgeon here is worn and tired by the immense amount of work which has suddenly overtaken him. Dr. Tripler, and his associate, Dr. Smith, are quite complimentary of the volunteer corps.

"When the 'stars and stripes' were raised over my hospital, (William and Mary College,) the bell was rung merrily, and the guards and troops in the vicinity gave a long and loud hurrah!

"I have had no Massachusetts men in my hospital. The 11th and 1st Regiments suffered some in the fight."

NEWS AND MISCELLANY.

A Surgical Orator.—M. Malgaigne, in the following remarks, which we copy from that excellent journal the *Dublin Medical Press*, gives, in few words, a sad picture of the condition and management of some of the celebrated Parisian hospitals. It is to be hoped that the evils complained of will be corrected:—

"To announce a new discourse of M. Malgaigne is to announce a new success. During nearly two hours the Academy of Medicine, on the 2d of April, listened with attention to his language; at one time vibrating with emotion, and at another cutting with sarcasm, but ever rich, and wonderful in its flow. During this long improvisation not the slightest hesitation occurred. His interrupters had but little chance with him; with a word he transfixed and reduced them to silence. M. Trébuchet and M. Briquet were never exposed to such a tempest of burning and even cruel apostrophes. The whole Academy was full of emotion, and in transport. His memorable oration was overwhelmed with applause. Happily also his eloquence was engaged in a good cause. He tore to rags the veil with which optimism had tried to cover the mortality in Parisian hospitals. He traced a lamentable picture of their fatality. Surgery he exhibited losing fifty per cent. of its patients operated upon; in the medical wards, death carrying off one patient in every eight; and in the maternity hospitals, sometimes one in five. He drew a striking picture also of Lariboisière, where so many millions (of *francs*) have been spent in splendid colonnades, in elegant arcades, in an immense reception-court, (which is not even available as a promenade for the sick,) and in a vast chapel covered with gilt! 'It is,' he said, '*le Versailles de la misère;* its luxury is a scandal.' 'In this monumental hospital, which strangers visit, and which we are proud to show them, death reaps an enormous tribute, greater than elsewhere; it is of all hospitals the most deadly.' M. Malgaigne maintains that in London hospitals the mortality in cases of operation is thirty per cent., and fifty per cent in Parisian. The slight improvement which has lately taken place in Paris he attributes to improvement in the diet of patients, not to any improvement in the sanitary state of the hospitals. The mortality after operations he unhesitatingly attributes to overcrowding of the wards, to the large size of hospitals, and to large wards. 'These enormous asylums for the sick are focuses of death. Build no more large hospitals. Avoid this crowding together of the sick.'"

How to combat Empiricism.—Dr. C. C. F. Gay, of Buffalo, in a very interesting address, on retiring from the Presidency of the Buffalo Med. ical Association, says: "Do you ask how best we may combat empiricism? I reply, let it severely alone, or if an attack must needs be made, avoid all pretext for a charge of persecution by making

that attack by a flank movement. Go to work and promote and diffuse the sciences among the people. Where the sciences are cultivated, empiricism, like the weeds of a well-cultivated garden, will go to decay. Science and empiricism are incompatible. They cannot exist together. Who ever knew a scientific man to be a quack, or a quack a scientific man? Science, then, is the antidote, and we have deep interest in its general diffusion among the people. But science may be objectionable to some, because she is modest. She will not permit her votaries to succeed—in the common acceptation of the term. It is, I regret to acknowledge, too often the case that the medical man of science and modesty must give way to the man of less science and less modesty."

Answers to Correspondents.

Dr. S. M. H., Md.—Let us have your experience, by all means. We are very partial to the observations of our country subscribers.

A. H. M., Philadelphia, and W. C., N. Hampshire.—You will find a notice of the Medical Department of the University of the Pacific, of San Francisco, California, in this number. Students are received in that College, who give evidence of having attended a course in any respectable school of medicine.

1. The climate of California is reported as being remarkably healthy. The prevailing diseases are not essentially different from those on the Atlantic coast. In the Pacific division of the U. S. Army, composed of 139 officers and 3405 men, the total number of cases treated during the quarter ending December 31, 1861, was 2960, of which 16 terminated fatally, of the following diseases: delirium tremens, 1; concussion of brain, 1; heart disease, 1; pericarditis, 1; phthisis pulmonalis, 1; chronic diarrhœa, 1; gangrene of lungs, 1; variola, 1; typhoid fever, 8. The whole number of cases of typhoid fever treated was 45; of the different forms of malarious fever, 277; diseases of the digestive system, 724; of the respiratory system, 438; of the urinary organs, 621; acute rheumatism, 145; chronic rheumatism, 45.

2. There are some very respectable physicians and surgeons in California, but the profession as a body is not well organized as yet. An attempt was made a few years since to organize it, but we regret to say that it failed.

3. There are two medical journals published in San Francisco, viz., the *Pacific Medical and Surgical Journal*, published monthly, and the *Medical Press*, published quarterly.

4. We have no list of the physicians of California, or of San Francisco.

5. We should suppose the drug business would be profitable there. Drugs are purchased in the Atlantic cities chiefly.

6. The postage on the Reporter to California is one cent per copy, when paid in advance.

☞ In answer to several correspondents, we would say that the "Physician's Hand Book," published by Townsend in New York, is out of print for 1862, and we have made no arrangement, as yet, for 1863.

Dr. N. E. H., Ohio.—For cost of binding the Reporter, see the Prospectus in any of the weekly numbers. The style of binding there referred to is what is termed "half-morocco"—*i.e.* morocco backs and corners, and marbled paper sides. That, however, is *our* charge. A bookbinder would probably charge you 75 cents for the same binding.

The new edition of the U. S. Pharmacopœia is not yet out, though it will be soon.

Dr. H. B., Penn.—"Carpenter's Principles of General Physiology" and "Da Costa's Aids to Diagnosis" are not yet issued.

Dr. J. W. S., R. I.—We do not pay postage on the Reporter to subscribers.

MARRIED.

Green—Williams.—On Thursday, May 22d, at the Central Church, Worcester, Mass., by Rev. Dr. Sweetser, Samuel F. Green, M.D., of Green Hill, Worcester, Mass., to Miss Margaretta P. Williams, of Worcester.

OBITUARY.

Condict.—We see it announced that Dr. Lewis Condict died on the 26th instant, at Morristown, N. J., in the ninetieth year of his age. Dr. Condict was a graduate of the Medical Department of the University of Pennsylvania, being, with Dr. John Redman Coxe, of this city, the oldest graduate of that celebrated school. They received their diplomas in 1794! We do not, however, propose to write an extended notice of this patriarch in the profession. Though it was our pleasure to enjoy a slight acquaintance with him, there are others who are much more capable of doing justice to his memory. Suffice it to say now, that he was honored and respected as a physician and a man, and his loss will be deeply felt, not only by his family and immediate friends, but by the profession of New Jersey and of the whole country.

We shall endeavor to obtain a full biographical sketch of him for our columns.

Vital Statistics.

Of Philadelphia, for the week ending May 24, 1862.

Deaths—Males, 127; females, 130; boys, 69; girls, 70. Total, 257. Adults, 118; children, 139. Under two years of age, 80. Natives, 192; Foreign, 45. People of color, 17.

Among the causes of death, we notice—Apoplexy, 2; convulsions, 10; croup, 4; cholera infantum, 0; cholera morbus, 1; consumption, 38; diphtheria, 4; diarrhœa and dysentery, 6; dropsy of head, 4; debility, 12; scarlet fever, 13; typhus and typhoid fever, 8; inflammation of brain, 7; of bowels, 9; of lungs, 14; bronchitis, 1; congestion of brain, 7; of lungs, 1; erysipelas, 3; hooping-cough, 5; marasmus, 10; small-pox, 8.

For week ending May 25, 1861.....247
" " May 17, 1862.....255

Population of Philadelphia, by the census of 1860, 568,034. Mortality, 1 in 2210·2.

Of Boston, for the week ending May 17, 1862.

Deaths—Males, 41; females, 31. Total, 72. Natives, 45; Foreign, 27.

Among the causes of death, we notice—Phthisis, 13; cholera infantum, 1; croup, 2; scarlet fever, 4; pneumonia, 4; variola, 0; dysentery, 1; typhus fever, 1.

Population of Boston in 1860, 177,902. Average mortality, corrected to increased population, 77·72. Mortality, 1 in 2470·8.

Of Providence, R. I., for the month of April.

The number of deaths in Providence, during the month of April, was 56. Males, 28; females, 28. Native, 42; foreign, 14. American parentage, 24; foreign, 32. Under two years of age, 13; from two to twenty, 11; over twenty, 32. From consumption, 14; croup, 2; cancer, 4; inflammation of brain, 3; disease of heart, 3; pneumonia, 3; typhoid fever, 2; old age, 3, etc.

There was one death to 904·7 of the population, by the census of 1860.

The population of Providence in 1860 was 50,666, which gives one death in 904 for the whole month. The number of deaths in April, 1861, was 82, or 26 more than in the last month. The average number in April, for the six years, 1856 to 1861 inclusive, was 81. The number of deaths in the first four months of the present year has been 72, or more than 22 per cent. *less* than during the corresponding period of last year.

MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

The next Annual Meeting of the Medical Society of the State of Pennsylvania will be held in the City of Philadelphia on the second Wednesday (the 11th day) of June next, at 11 o'clock A.M. The Sessions will be held at the University of Pennsylvania. It is earnestly hoped a large delegation will be present.

J. T. Carpenter, Schuylkill Co.,
J. Henry Smaltz, Philadelphia,
Secretaries Med. Soc. State of Penn'a.

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